

Date: Sat, 6 Aug 94 04:30:14 PDT  
From: Ham-Ant Mailing List and Newsgroup <ham-ant@ucsd.edu>  
Errors-To: Ham-Ant-Errors@UCSD.Edu  
Reply-To: Ham-Ant@UCSD.Edu  
Precedence: Bulk  
Subject: Ham-Ant Digest V94 #249  
To: Ham-Ant

Ham-Ant Digest                      Sat, 6 Aug 94                      Volume 94 : Issue 249

Today's Topics:

                    G5RV grounding question  
                    Ham-Ant Digest V94 #248 -Reply  
                    how to build a single band vertical? (2 msgs)  
                    JPole fundamentals  
                    Ladder line length (was Re: G5RV grounding question)  
                    Need Simple UHF Antenna Design  
                    Rotator Advice Wanted  
                    Which telescopic antenna for 2m HT?

Send Replies or notes for publication to: <Ham-Ant@UCSD.Edu>  
Send subscription requests to: <Ham-Ant-REQUEST@UCSD.Edu>  
Problems you can't solve otherwise to brian@ucsd.edu.

Archives of past issues of the Ham-Ant Digest are available  
(by FTP only) from UCSD.Edu in directory "mailarchives/ham-ant".

We trust that readers are intelligent enough to realize that all text  
herein consists of personal comments and does not represent the official  
policies or positions of any party. Your mileage may vary. So there.

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Date: Thu, 4 Aug 1994 17:14:11 GMT  
From: ihnp4.ucsd.edu!newshub.sdsu.edu!nic-nac.CSU.net!usc!howland.reston.ans.net!  
cs.utexas.edu!news.tamu.edu!news.utdallas.edu!corpgate!nrtphaa9.nt.com!brtph560!  
b4pph107!jwittich@network.ucsd.edu  
Subject: G5RV grounding question  
To: ham-ant@ucsd.edu

There was a posting regarding grounding a G5RV, then:

In article <cmwdr01.57.000B4905@nt.com>, cmwdr01@nt.com (Dave Redfearn) writes:

|>  
|> >Is my whole approach wrong?  
|>  
|> Yep :-)  
|> For the most efficient multi-band operation, you should remove the coax,

|> feed the the antenna entirely with ladder line or 1" slotted twinlead, and use  
|> a balanced antenna tuner at the shack end.  
|>  
|> >thanks, 73, Jeff.  
|>  
|> 73 - Dave.  
|>

Thanks for the response Dave. I know twin lead would be best,  
but alas, the Knwd 450 has a built in tuner with only unbalanced  
output. Thats what I get for cheaping it. BTW, to use twin lead,  
would I still leave the balun where it is or remove it with the coax  
and end up with a 104 ft dipole fed with twin lead?

73, Jeff

P.S. Do you have a COCOS address? I can't find it if you do.

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*****  
jwittich@b4pph107.bnr.ca          * BNR claims they know nothing of my  
AC4ZO                             * employment here.  
*****
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Date: 5 Aug 94 14:12:21 GMT  
From: news-mail-gateway@ucsd.edu  
Subject: Ham-Ant Digest V94 #248 -Reply  
To: ham-ant@ucsd.edu

I'm on vacation until August 22. I'll read your message and reply  
when I return. If you need assistance with Emission Monitoring or  
Stack Testing, please contact Jerry Keefe or Jack Harvanek. Thanks

Alan Hicks

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Date: Fri, 5 Aug 1994 00:56:30 GMT  
From: ihnp4.ucsd.edu!dog.ee.lbl.gov!agate!iat.holonet.net!vectorbd!  
jp11@network.ucsd.edu  
Subject: how to build a single band vertical?  
To: ham-ant@ucsd.edu

Tad Marko (tad@jove.acs.unt.edu) wrote:  
: Being a train nut.....

Dunno how you feed your 1/2 and full wave antennas, but they're not the 36 to 50 ohms a 1/4 wave will be. They'll be hi-Z by far.

Alternatives would be a proper 5/8 wave from ham supplier or something trickier... like:

Assuming the trains are "left", "right", or behind of your vehicle, put a 1/4 wave on each side of your toolbox (spacing will be important) and feed them with a phasing set up so you can steer it electrically. I assume the cab will block to the front. Also, the whips should be >1ft from the back of the cab. Mag Mtg them on the cab roof would be better yet. Look for info on HF phased verticals and apply same principles.

Wanna really getting fancy? Put in a manual Adcock array or 8 or more verticals and you'd get gain and DF capability.

--

-Jim Lill-  
jpll@vectorbd.com  
wa2zkd@wb2psi.#wny.ny.usa.na

Vector Board BBS  
716-544-1863/2645  
GEnie: ZKD

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Date: 3 Aug 94 23:13:14 GMT  
From: ihnp4.ucsd.edu!pacbell.com!sgiblab!spool.mu.edu!howland.reston.ans.net!  
cs.utexas.edu!news.unt.edu!jove!tad@network.ucsd.edu  
Subject: how to build a single band vertical?  
To: ham-ant@ucsd.edu

Being a train nut, I built myself a magnet mount antenna tuned to 160.89 MHz (the middle of the railroad band) consisting of a single vertical aluminum rod 3/16" in diameter and 1/2 wavelength long (adjusted for the diameter according to a table from the ARRL antenna book). I also have one that is a full wavelength for when I'm train chasing through the countryside and a 10'6" tall vehicle isn't a problem.

I have the antenna mounted on my truck's toolbox, which is almost in the center of my full size pickup truck. This antenna works very well (and even pulls in 2m and of course the various even multiple and fractional bands as well), but I'm greedy for all the reception that I can get and was wondering if there was anything in the way of radials or any other tricks that I could do to improve the reception still more.

Also, can anyone theorize on what the effective difference between the

1/2 wave and full wave antennas may be?

Thanks,  
Tad

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Tad Marko                    Internet: tad@jove.acs.unt.edu

If you really want to help me, give me Liberty.

-----  
Date: Thu, 4 Aug 1994 16:16:40 GMT  
From: hplntx!hpcc01!markb@hplabs.hpl.hp.com  
Subject: JPole fundamentals  
To: ham-ant@ucsd.edu

You got it right, the radiating section is a 1/2 wave length.  
the end feed point is high impedance which matches the end of the  
1/4 wave section. this is really an end fed zep, only vertical.  
you could use a balun match at the base of a 1/2 wave radiator.  
It wouldn't look like a J but would work. This is how the R5 and R7  
work. you need about a 50 to 800 ohm balun.

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Date: 5 Aug 1994 19:59:37 GMT  
From: newsgw.mentorg.com!srp!jbate@uunet.uu.net  
Subject: Ladder line length (was Re: G5RV grounding question)  
To: ham-ant@ucsd.edu

In article 9160@brtph560.bnr.ca, jwittich@b4pph107.bnr.ca (Jeffrey Wittich)  
writes:

>There was a posting regarding grounding a G5RV, then:

>

>In article <cmwdr01.57.000B4905@nt.com>, cmwdr01@nt.com (Dave Redfearn) writes:

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>would I still leave the balun where it is or remove it with the coax  
>and end up with a 104 ft dipole fed with twin lead?

>

>73, Jeff

An additional question:

I am using 450 ohm ladder line on my 80 1/2 wave dipole fed by a 9:1  
balun. The balun is fed by a short (2') length of 50ohm coax.

For some reason my SWR is very high (3-oo) on all bands except 10m.

What effect does the length of the ladder line have on the whole scheme of things?

My setup is:

```
oo----- 67.5 ft ----- oo ----- 67.5 ft -----oo
                        H
                        H
                        H
                        H
                        100'
                        H
                        H
                        <9:1>
                        |
```

Thanks for the help.

john (ki7hs/4)

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Date: 5 Aug 94 16:53:13 EST  
From: noc.near.net!bosv01!lederman@uunet.uu.net  
Subject: Need Simple UHF Antenna Design  
To: ham-ant@ucsd.edu

In article <1994Aug4.012418.9568@sol.cs.wmich.edu>, radams@cs.wmich.edu (Robert Adams) writes:

> In article <1994Aug3.182952.26995@ulthb.isc.rit.edu>,  
> sparky <jge8874@ritvax.isc.rit.edu> wrote:

>>I'm looking for a simple UHF antenna, designed specifically for  
>>channel 68, which operates at 794 - 800 MHZ. I live at least

> Not asking for much, are we? <g> What you want has no simple solution...  
> other than suggesting some extant commercial TV antenna.

After some years with cable, I decided to go back to off-the-air. I've discovered that there aren't that many sources of commercial TV antennas around anymore. Aside from Radio Shack, how would you find anybody else? All the old familiar names aren't even listed in electronic industry directories anymore.

My reference books are rather old, but in the next week or so I'm going to build a colinear array for channel 50, but I will probably use a screen for the reflector rather than individual rod reflectors. This seems to be easier to build and give more gain than an equivalent size Yagi. (At least the old ARRL Antenna book and V.H.F. book say so, but for some reason NONE of the actual designs have gain figures listed. Only the theoretical drawings have gains). The colinear also has a wider bandwidth: a high-gain Yagi would have a bandwidth less than one TV channel wide.

This, by the way, is for one station I can't get with a Radio Shack antenna, which will get me some stations which are over 60 miles away. A higher gain antenna and/or pre-amp would help, but channel 50 is in a different direction than most of the other channels (for me).

I would be interested in other opinions, though. And if anyone knows the actual addresses for companies still making resident TV antennas I'd like to see them.

-- B. Z. Lederman. My personal opinions.

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Date: Thu, 4 Aug 94 17:48:00 -0500  
From: iat.holonet.net!cencore!forrest.gehrke@uunet.uu.net  
Subject: Rotator Advice Wanted  
To: ham-ant@ucsd.edu

T0>I have heard some good things about the Orion rotors sold by Mike Stahl of  
T0>M2. My friend ERic WB4QNP used one to handle a Cushcraft 402CD, an A3WS and  
T0>a DXEngineering 6 element 20m (60 ft boom) with no problem. Apparently,

What is address of Mike Stahl? Also I don't recognize M2. What

does M2 mean?

Sorry to hear about your lightning loss. What I don't understand about my TV failures is that they got it from both ends. As a result they are almost total failures. Somehow they took a jolt from their AC power line connections but they also got a jolt from the cable connection. As a result their tuners failed too.

What I am going to do for the future is to get hold of these gas tube surge protectors. (Reminds me of the gas TR tubes used in radars to prevent the transmitter RF from burning out the receiver diode detectors). Aug. QST p.113 has an ad for these gizmos.

My TV's had surge protectors on them but that didn't help. I had the same type surge protectors on my PC and it was saved.

T0>being hefty they have a 'shock absorber' in the design that really improves T0>reliability. The control circuit is supposedly very accurate with the headi

That sounds like a good idea.

T0>readout. Eric did do something else that may improve the situation: he use T0>double thrust bearings to make rotor replacement easier (not necessary any m T0>with the Orion rotor, he says). Of course, double thrust bearings will not

I have that type of thrust bearing.

T0>part number OR2800P -- rated 35 sq ft  
T0>1700 in lbs turning torque  
T0>30k in pounds beaking torque  
T0>uses worm gear drive instead of brake

Sounds like big bucks.

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≥ SLMR 2.1a ≥ Ve gedt too soon oldt undt too late schmart!

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Date: 4 Aug 1994 21:00:02 GMT  
From: newsgate.watson.ibm.com!watnews.watson.ibm.com!vinod@uunet.uu.net  
Subject: Which telescopic antenna for 2m HT?  
To: ham-ant@ucsd.edu

In article <31lh4c\$1hgu@watnews1.watson.ibm.com>, vinod@watson.ibm.com (Vinod Narayanan) writes:

|> stuck with using a "portable" antenna on the HT. So, I am  
|> looking to get something that can extend the range of the  
|> HT. There are couple of repeaters I can easily hit with

Thanks very much to everyone who replied to my previous post! I haven't decided which one to get yet, but I have lots more information now. Thanks!!

--vinod  
email: vinod@watson.ibm.com

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End of Ham-Ant Digest V94 #249  
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